DOCUMENT RESUME

ED 474 830 EF 006 265

TITLE	Environmental Compliance and Pollution Prevention Training Manual for Campus-Based Organizations--Operational and Facility Maintenance Personnel.
INSTITUTION	New York State Dept. of Environmental Conservation, Albany.; New York Univ., NY.
SPONS AGENCY	Environmental Protection Agency, Washington, DC.
PUB DATE	2000-00-00
NOTE	44p.; Produced by the Center for Integrated Waste Management.
CONTRACT	NP982048
AVAILABLE FROM	For full text: http://www.dec.state.ny.us/website/ppu/ecppcamp.pdf.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS	*Compliance (Legal); Conservation (Environment); *Educational Facilities; *Environmental Standards; Government School Relationship; Hazardous Materials; Pollution; School Maintenance; State Regulation
IDENTIFIERS	*New York

ABSTRACT

This manual was designed to be used as part of the Workshop on Environmental Compliance and Pollution Prevention for campus-based facilities. It contains basic information on New York state and federal laws, rules, and regulations for protecting the environment. The information presented is a summary with emphasis on those items believed to be important in the type of work done on a daily basis. The objectives of this guide and the associated workshop are: (1) to instill the principles of pollution prevention into daily staff practices; (2) to foster recycling and reuse of spent and used materials; (3) to reduce waste disposal to the extent possible; (4) to raise the awareness of the impact of individual daily actions on the environment; and (5) to review the requirements of specific New York state and federal regulations that interface with many daily work practices. The seminar and this manual will assist in reducing individual workplace impact on the environment and to stay within the bounds of the law and avoid fines and criticism. (EV)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 474 830

ENVIRONMENTAL COMPLIANCE AND POLLUTION PREVENTION TRAINING MANUAL

for

CAMPUS-BASED ORGANIZATIONS - OPERATIONAL AND FACILITY MAINTENANCE PERSONNEL

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
POLLUTION PREVENTION UNIT

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

and

STATE UNIVERSITY OF NEW YORK AT BUFFALO
CENTER FOR INTEGRATED WASTE MANAGEMENT

Funded by EPA Grant No. NP982048

EF 006 265

Full text available at:
http://www.dec.state.ny.us/website/ppu/ecppcamp.pdf

BEST COPY AVAILABLE

Funding for these workshops was made available through a grant from the U.S. Environmental Protection Agency (USEPA) to the New York State Department of Environmental Conservation (DEC). The Center for Integrated Waste Management developed the training element of the proposal and received funding to implement it.

New York State Department of Environmental Conservation
Pollution Prevention Unit

State University of New York at Buffalo
Center for Integrated Waste Management

INTRODUCTION

This manual was designed to be used as part of the Workshop on Environmental Compliance and Pollution Prevention for campus-based facilities. It contains basic information on New York State and Federal laws, rules and regulations for protecting the environment. The information presented is a summary with emphasis on those items believed to be important in the type of work you do on a daily basis. Consequently, we are unable at this session to cover every topic completely and review all implications of each regulation. If you have any questions now or in the future, please call the DEC staff using the numbers provided in this manual.

OBJECTIVES

The objectives of this guide and the associated workshop are:

(1) to instill the principles of pollution prevention into daily staff practices

(2) to foster recycling and reuse of spent and used materials

(3) to reduce waste disposal to the extent possible

(4) to raise the awareness of the impact of individual daily actions on the environment

(5) to review the requirements of specific New York State and Federal regulations that interface with many daily work practices

Meeting these objectives is critical to all Public and not-for-profit organizations since many of their daily activities can have a significant impact on the environment. Additionally, some of these activities may not only be poor environmental practice but may be controlled by State and Federal laws and regulations. Lastly, the public holds public and not-for-profit organizations to a higher standard than the private sector relative to the environment and, therefore, it is important to be in compliance with all State and Federal requirements.

The seminar and this manual will assist you in reducing your individual workplace impact on the environment while assisting you and your organization to stay within the bounds of the law and avoid fines and criticism.

If your facility manager is interested in conducting an in depth environmental review of all the shops/facilities at a location, a self-audit manual can be obtained from the New York State Pollution Prevention Unit. This manual is specifically designed to be used by an organization's in-house team of managers and shop foremen and will generate a view of the environmental compliance of the facility. Copies of the "Environmental Self-Audit for Campus-based Organizations" are available by calling the DEC's Pollution Prevention Unit at (518) 457-2553. It is also available on the unit's website: www.dec.state.ny.us/website/ppu. Click on the publications link.

TABLE OF CONTENTS

Topic	Page
Air Pollution	1
Bulk Storage - Chemical/Petroleum	5
Hazardous Waste	8
Housekeeping	12
Permits	15
Pesticides	18
Pollution Prevention	21
Regulated Medical Waste	23
Remediation	26
Solid Waste	29
Spill Response	32
Use and Protection of Water Bodies	35
Water Pollution	38
Wetlands	43
Summary	46
DEC Regional Office	47

AIR

Common Questions Answered in this Session include:

- ❑ **Can I burn anything outside?**
- ❑ **Can I burn waste lubricating oil in a shop furnace?**
- ❑ **Do paint spray booths and coating operations require a permit?**
- ❑ **How do I handle removal of asbestos?**
- ❑ **How long can diesel buses/trucks idle?**
- ❑ **Do all dust-generating devices need control devices and permits?**

6. Open Burning - No open burning of garbage; rubbish for salvage; rubbish in any city, village or town greater than 20,000 of population; and rubbish generated by industrial or commercial activities other than agricultural is allowed.

   Open burning is not encourage on any state property (other than campfires in designated areas). Although open burning of specific material (agricultural wastes) may be legal, state agency facilities/public corporations should avoid any open burning. Where open burning is necessary, appropriate approvals must be obtained from the DEC (Regional Office) and the local fire department.

7. Idling Trucks and Buses - It is unlawful to idle diesel trucks or buses for more than five minutes. A few exceptions exist to this rule such as when operation of the engine is required for the purposes of maintenance and for controlling cargo temperature, or when the outside temperature is below freezing.

8. Permitting - Air discharges from a process, combustion unit or incinerator require a permit or registration unless exempt or considered a trivial activity.

Common exemptions are:

- ♦ Ventilating and exhaust systems for laboratory operations.
- ♦ Waste oil space heaters where the waste oil is generated on site. Waste oil must be free of all chemical contaminants such as antifreeze, degreasing solvents, gasoline, heavy metals, and pesticides. The waste oil space heater must not exceed 0.5 million Btu/hr.
- ♦ Emergency power generating units installed operating less than 500 hrs./yr.
- ♦ Stationary or portable internal combustion engines that are gasoline powered and have a maximum mechanical power rating of less than 50 brake horsepower.

- Stationary or portable internal combustion engines which are temporarily located at a facility for a period not to exceed 30 days per calendar year, where the total combined maximum mechanical power rating for all affected units is less than 1000 brake horsepower.

- Emergency power generating units installed for use when the usual sources of heat, power, water and lighting are temporarily unobtainable, or which are installed to provide power to fire-fighting equipment, where each individual unit operates less than 500 hours per year, and excluding those units under contract with a utility to provide peak shaving generation to the grid.

- Stationary or portable combustion installations where the furnace has a maximum rated heat capacity less than 10 million Btu/hr burning fossil fuel, other than coke, coal and wood fired stationary combustion units with a maximum heat input less than one million Btu/hr.

- Surface coating and related operations which use less than 25 gallons per month of coating materials (paint) and cleaning solvents combined.

- Gasoline dispensing sites with an annual throughput less than 120,000 gallons located outside any severe ozone non-attainment areas.

- Abrasive cleaning operations which exhaust to an appropriate emission-control device.

Common trivial activities are:

- Ventilating systems used in buildings to house animals
- Blueprint machines
- Photocopying, photographic processing or related equipment
- All process emission sources which are located at private, public or vocational education institutions where the emissions are the result of teaching and training exercises, and the institution is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner
- Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning ceramic art work, ceramic precision parts, leather, metal parts, plastics, fiberboard, fiberglass, masonry, carbon, glass, graphite, wood or rubber
- Manual surface coating/painting processes which exclusively use brushes, rollers, or aerosol cans
- Hand-held or manually operated welding, brazing and soldering equipment
- Sawmills, provided all processes are located at least 500 feet from any recreational area, school, or private residence and all residues from debarking, planning, sawing, etc, are contained in such a manner as to minimize fugitive emissions
- Fire training activities
- Rifle and pistol ranges

- Emissions of the following pollutants: water vapor, oxygen, carbon dioxide, nitrogen, inert gases such as argon, helium, neon, krypton, and xenon, hydrogen; simple asphyxiants including methane and propane; and trace constituents included in raw materials or byproducts, where the constituents are less than one percent by weight for any regulated air pollutant, or 0.1 percent by weight for any carcinogen listed by the United States Department of Health and Human Services' Seventh Annual Report on Carcinogens (1994)

Any questions, call the DEC Regional Office serving your area (see page 47).

NOTES

BULK STORAGE
PETROLEUM AND CHEMICAL

COMMON QUESTIONS ANSWERED IN THIS SESSION INCLUDE:

- ❑ **What is required to be in compliance for above ground tanks? below ground tanks?**
- ❑ **How do you take a tank out of service?**
- ❑ **What tanks need registration?**
- ❑ **What is a leak detection system and is it required?**
- ❑ **Do I have to keep records?**
- ❑ **Are tanks inspected regularly and by whom?**
- ❑ **Is regular maintenance required?**
- ❑ **Who has to have a SPCC plan?**

Chemical Bulk Storage (CBS)

1. Notification of spills within two hours by anyone aware at the CBS facility: 1 (800) 457-7362.

2. Registration required for above ground tanks greater than or equal to 185 gallons and all underground tanks, regardless of size. In addition, non-stationary tanks storing 2,200 lbs. for more than 90 consecutive days also require registration.

3. CBS handling requirements for storage, handling, inspecting and testing tanks apply.

4. • See also TIP sheet on hazardous materials.

Petroleum Bulk Storage (PBS)

A. Notification of spills within two hours by anyone aware at the PBS facility: 1 (800) 457-7362.

B. Registration of facilities > 1,100 gallons:
   1. Mobile tanks (used as mobile, i.e., not permanent) exempt
   2. <1,100 gallon heating oil tanks for onsite use exempt and also exempt from volume calculation

3. All waste oil tanks require registration regardless of tank size and site volume
4. Additional Federal regulations for underground tanks which are different than State may be applicable

C. PBS regulations include (but not limited to):
1. Inspections
2. Testing
3. Responsibility for transfer loadings, and
4. Secondary containment where applicable

Any questions, call DEC Bulk Storage Section at 1 (888) 457-4351 or the Bulk Storage Unit at your Regional DEC office.

Region 1 - (516) 444-0354
Region 2 - (718) 482-4900
Region 3 - (914) 256-3000
Region 4 - (518) 357-2234
Region 5 - (518) 897-1200
Region 6 - (315) 785-2238
Region 7 - (315) 426-7400
Region 8 - (716) 226-2466
Region 9 - (716) 851-7220

NOTES

HAZARDOUS WASTE

Common Questions Answered in this Session include:

- ❑ **What is the best way to use and dispose of solvents?**
- ❑ **What is considered hazardous waste?**
- ❑ **What is the best way to store hazardous waste?**
- ❑ **How do I safely clean up spills?**
- ❑ **Who can dispose of hazardous waste?**
- ❑ **Who determines if a waste is hazardous?**

Identifying Hazardous Wastes

Hazardous wastes are solid wastes which either exhibit a hazardous characteristic (ignitability, corrosivity, reactivity or toxicity) or are listed in the NYS hazardous waste regulations (6NYCRR Part. 371). You should consult your supervisor for assistance in determining whether any waste you generate is hazardous.

Examples of common hazardous waste include:

- ♦ Oil based paints and latex paints manufactured prior to August 1990
- ♦ Spent parts cleaner fluids
- ♦ Used lead-acid batteries in storage until recycled; and certain dry cell batteries
- ♦ Used oil contaminated with hazardous wastes such as gasoline, brake fluid, solvents, heavy metals, or pesticides
- ♦ Acids and bases
- ♦ Compressed gases (generally, any that are ignitable)
- ♦ Solvent contaminated rags before recycling/laundry
- ♦ Waste pesticides
- ♦ Transformers, fluorescent lights and computers/monitors

To help identify whether something is hazardous, check labels and Material Safety Data Sheets and consult with your supervisor.

Requirements for Containers of Hazardous Waste

- ♦ Each container holding hazardous waste must have a label marked with the words "Hazardous Waste" and other words identifying the contents.

BEST COPY AVAILABLE

- The date upon which accumulation of hazardous waste begins must be clearly marked and be visible for inspection on each container.
- Containers for hazardous waste must be in good condition and be made of a material compatible with the waste being stored.
- Containers of hazardous waste should be stored in a secure area away from work activities which could cause spills.
- Containers of hazardous waste are considered empty when all wastes that can be physically removed by common means have been and:
- No more than one inch of residue remains in the bottom of the container, or
- For containers less than or equal to 110 gallons, no more that three percent by weight of the total capacity of the container remains, or
- For containers greater than 110 gallons, no more than 0.3 percent by weight of the total container capacity remains,
- Containers which held hazardous compressed gasses are considered empty when the internal pressure approaches (is essentially equal to) atmospheric pressure.

Transportation of Hazardous Wastes

- Hazardous wastes being transported offsite must be accompanied by a properly completed Hazardous Waste Manifest.
- Transporters must have a valid 6NYCRR Part 364 (Waste Transporter) permit.
- Conditionally Exempt Small Quantity Generators can transport their own hazardous waste, without a 6NYCRR Part 364 permit. Your supervisor can advise you whether this exemption applies.
- Hazardous Wastes can only be transported to a permitted treatment, storage or disposal facility; or a recycling facility.

Rules for Safe Storage and Handling of Hazardous Wastes and Chemical Products

- Keep products in original containers or properly label new ones.
- Inspect containers frequently for signs of leaks, spills, and deterioration.
- Make sure containers are kept closed, in good condition and are made of materials compatible with the contents.
- Never mix different chemical products (or wastes) unless directed to do so by a technically competent individual.
- Do not mix hazardous and non-hazardous wastes. Doing so may cause both wastes to become hazardous.
- Store away from extreme heat and cold, and away from human or animal contact.
- Chemical products and wastes should never be disposed in septic systems or deposited in the ground.
- Your employer should provide periodic training related to the management of hazardous wastes.

- Personal protective equipment (gloves, respirator, etc.) may be needed when handling hazardous wastes.

Any questions, contact the NYSDEC Regional Office in your area (see page 47).

NOTES

HOUSEKEEPING

Common Questions Answered in this Session include:

- ❑ **If I purchase large quantities, I can save money so why should I purchase in small quantities?**
- ❑ **Do cleaning agents and paints deteriorate with age?**
- ❑ **Why should absorbents not be used?**
- ❑ **Antifreeze is not considered hazardous; so why collect and recycle it?**
- ❑ **Do all labels (on products) indicate toxicity or hazards?**

The purchase and use of purchased material can effect your long-range environmental impact. Consider the following:

1. Procurement of commodities

- ♦ Buy what you can, use in a reasonable amount of time. Purchasing in quantities to large results in waste by spoilage, aging/drying, advent of newer products, etc.
- ♦ Use material by date or purchase—first in, first out.
- ♦ Purchase safest material to do the job.
- ♦ Request that the vendor use the minimum of packaging material or use returnable packaging/containers.
- ♦ Purchase commodities from a vendor that will accept obsolete or out-of-date material.
- ♦ Realizing that many commodities are eventually spent or wasted (cleaning agents) purchase solvent free, biodegradable commodities.

2. Housekeeping

- ♦ Oils and solvents contain harmful compounds. Waste oils and solvents should be collected for proper disposal.
- ♦ Cleaning agents vary in their ingredients. Purchase less toxic, less flammable cleaners.
- ♦ Many instruments and devices contain batteries, elemental mercury or other toxic materials. Such devices should be collected (when out of use) or the batteries should be collected to allow proper disposal.
- ♦ Pallets can become a waste management problem. If possible purchase from vendors that will take the pallet back or arrange for some other use.
- ♦ Concrete floors should be sealed to facilitate a clean up of a spill.
- ♦ Waste oil must be kept free of other waste liquids. Do not mix waste gasoline, solvents or antifreeze with waste oil.

- If you service a fleet of vehicles, purchase or build an oil filter draining device to remove all the oil, the drained filters can then be sold/given to a recycler for scrap.
- Store all waste liquids in separate closed storage drums clearly marked – WASTE OIL, WASTE ANTIFREEZE, etc.
- Stored waste containers should be in a contained area (sealed concrete). The drums should be checked every week for spills or leaks.
- Place drip pans under machinery or vehicles with chronic oil leaks. Check pans regularly and empty accumulated oil.
- Clean oil spills immediately with rags. Wring out the rags into the used oil drum then have rags laundered. Avoid using adsorbents when possible.
- Do not discharge antifreeze into drains that connect to septic tanks, dry wells, cesspools or out to surface water.
- Clean the outside of engines only when absolutely necessary and then use only non-hazardous degreasers
- If you spray paint use high volume, low pressure (HVLP) spray guns.
- If possible collect and reuse washing solvent from spray guns to thin next paint.
- If possible switch to water-based paints and primers, or if that is not possible try switching from lacquer paints to enamel.

NOTES

PERMIT

Common Questions Answered in this Session include:

- ❑ **How long are permits good for?**
- ❑ **If I ran into a problem and have to change something whom do I call?**
- ❑ **How do I know if I need a permit?**
- ❑ **Does the permit give the same information that was on the application?**

If a proposed action meets certain criteria, a permit may be necessary. The Division of Environmental Permits processes permit applications for regulated activities (in air, in water or on land) with assistance from the staff of the relevant technical program area. Some examples of activities that may need a permit: construction of a ditch, road, bridge, culvert, building/structure, storm water outfall, waste water system, borrow pit, pond, demolition of structures, gravel removal/stream channelization, land clearing and wetland modification. (This is not a complete list.)

A. Important Laws/Regulations Administered by this Division

SEQR – The State Environmental Quality Review Act. A State or local agency proposing to fund, approve, or undertake an action (project or physical activity) shall determine whether the action may have a significant effect upon the environment.

B. Important Laws/Regulations by this Division in cooperation with other programs

Protection of Waters—disturbance of stream banks, navigable waters, construction of dams.

Freshwater Wetlands/Tidal Wetlands—physical alteration of wetlands: grading, filling, ditching, etc.

Air/Water Pollution Regulations—regulates the discharge of pollutants to the air and water.

Mined Land Reclamation—controls the removal of more than 750 cubic yards per year of minerals, gravel, sand, clay) from a site.

Solid and Hazardous Waste Regulations—regulate the storage, transportation and disposal of hazardous materials and disposal of solid wastes.

C. Permits are required prior to any work

"As built" applications are, for the most part, not acceptable and indicate that the work was done without permit.

D. Be sure to read the permit

Permits are written approvals that indicate what you can legally do (what, when, how, etc.). Please remember that the permit was developed from your formal application and the DEC review that develops the conditions of the permit is based on that application. No matter what your intention may have been, you are only allowed to do the work that is approved on the permit.

Read the conditions. Not only will they tell you what you can do, they will also indicate your responsibility (reporting, posting, etc.).

Expiration dates are placed on all permits. No work is permitted after the termination date. However, renewals or extensions may be available on a case by case basis.

If you have any questions or if you want to know whether a permit is necessary for your activity, please contact the Division of Environmental Permits at (518) 457-2224 or the Regional DEC office nearest your facility (see page 47).

NOTES

PESTICIDE

Common Questions Answered in this Session include:

- ❑ **Are there general use categories for sprays or does every use have a specific pesticide?**
- ❑ **Do I need a special permit to spray at a state/local facility?**
- ❑ **If I spray do I have to keep records?**
- ❑ **How do I get certified?**
- ❑ **Are empty pesticide containers considered hazardous wastes?**
- ❑ **Must pesticides be kept locked up?**

Pesticides are chemicals intended to kill or control unwanted insects, animals, plants or microorganisms. Examples of pesticides include wasp and other insect sprays; wood preservatives or paints with mildewcides in them; mouse, ant or rat poisons; and granular lawn weeds and seeds products. Many pesticides are toxic to humans or pets. They may not be biodegradable and can accumulate in the environment.

- ♦ Employees should not apply <u>any</u> pesticides to facilities or property on behalf of the facility without commercial applicator certification, or acting under the direct supervision of a certified applicator.

- ♦ Facilities also must register with the DEC and certified applicators must file annual usage reports.

- ♦ If you are certified or acting under the direct supervision of a certified applicator, you must follow all the laws, rules and regulations pertaining to the application of pesticides, paying close attention to the instructions on the product label.

- ♦ **ALWAYS READ THE LABEL!** YOU SHOULD ALSO WEAR ALL PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED BY THE LABEL!

- ♦ Some pesticides have been banned from use because they pose high risk to humans. Banned or outdated pesticides should be handled by trained personnel only. NYSDEC staff can recommend a number of private firms that can collect, transport and properly dispose of illegal/banned or old pesticides.

- Empty pesticide containers should be triple rinsed before being thrown away and the rinse water should be saved and used as a pesticide where practical.
- Purchase only the amount of pesticide you need. Don't stockpile.

Any questions, call the DEC Division of Solid & Hazardous Materials, Pesticides Office at (518) 485-8990 or local office (see page 47).

POLLUTION PREVENTION

Pollution prevention is the philosophy associated with the reduction in the quality and quantity of pollutants released to the environment by altering the way we make products, the way we use things and the items that we discard.

1. Pollution prevention = best way to manage waste

   First, reduce or eliminate the amount of waste generated at the source; second, reuse material for the purpose for which it was originally intended or recycle material that cannot be reused; third, recover, in an environmentally acceptable manner, energy from waste that cannot be economically and technically reused or recycled; and fourth, dispose of waste that is not being reused, recycled or from which energy is being recovered, by methods approved by the Department.

2. Pollution prevention methods include:

   - Substitution of raw materials
   - Reformulation or redesign of product
   - Equipment or technology modifications
   - Improvements in housekeeping, maintenance, training or inventory control

3. Pollution prevention reduces operating costs for:

- Material by
  (a) reducing the amount of raw material wasted
  (b) producing more product with the same amount of ingredients
  (c) reusing clean-up materials for the next "first wash"
  (d) reducing the amount of material disposed of

- Energy by reusing materials that required energy for production, transportation, processing, etc.

- Fees
  (a) reducing insurance costs
  (b) avoiding the need for some permits
  (c) avoiding the need for some fees

REGULATED MEDICAL WASTE

Common Questions Answered in this Session include:

- ❑ **What is considered medical waste?**
- ❑ **Can any medical waste he placed in the garbage?**
- ❑ **What do dentist and doctor's offices do with their waste?**
- ❑ **What do I do if I find abandoned medical waste?**
- ❑ **Can I clean up medical waste? Do I need special equipment?**

Regulated Medical Waste (RMW) **IS**:

- ♦ Cultures and stocks infectious to humans
- ♦ Human pathological wastes fluids & body parts
- ♦ Human blood & blood products, bloody bandages & tubing
- ♦ SHARPS, hypodermic & intravenous needles, broken blood vials
- ♦ Animal Waste – contaminated with infectious agents

Regulated Medical Waste (RMW) **IS NOT**:

- ♦ Medical waste generated in a home
- ♦ Small amounts of blood absorbed by bandages, gauze, etc.
- ♦ Teeth
- ♦ Syringes used to baste or inject seasoning in meats of clean unused needs.
- ♦ IV bags & tubing

Have a REGULATED MEDICAL WASTE PLAN that instructs on how to be prepared on how to properly handle RMW. It should include Blood Born Pathogen Training for everyone who could handle RMW. A medical waste program should include: packaging and labeling instructions, sharps containers, biohazard bags, cleanup equipment and disinfectant and designation of a safe storage area, instruction on paper work and record retention, arrangement for transportation to a disposal area, a contract with a disposal facility, and an alternate disposal facility.

Some important concerns:

- ♦ Anyone who handles RMW should wear protective clothes, gloves, eyewear etc. so they don't come in contact with blood and other body fluids.

- Handle sharps with tongs, shovels, scoops, etc. so you are not pricked or punctured by a needle or sharp glass contaminated with blood.
- Put sharps in puncture proof containers, bloody bandages, bedding or clothes in plastic bags labels with biohazard labels. Clean up and disinfect any blood spills with 10% chlorine solutions.
- Label and box all RMW. Store contained RMW in safe non-accessible to the public locations.
- Arrange for proper disposal at local hospital or Medical Waste Disposal Company.
- The NYS Environmental Conservation Officers should be contacted to investigate any potentially illegal medical waste handling or disposal activities.

Any questions – call the Division of Solid and Hazardous Materials at (518) 457-9263 or the Regional DEC Office serving your area (see page 47).

REMEDIATION

Common Questions Answered in this Session include:

- ❑ **If I unearth a drum what do I do?**
- ❑ **While digging a foundation and see some waste or oily water, who do I call?**
- ❑ **Is it possible that an old landfill on the facility grounds may contain hazardous waste?**
- ❑ **Is liquid from an old landfill hazardous?**

Unknown Materials:

If you encounter unknown materials in the performance of your duties, for your own personal protection, treat it as though it is a hazardous material and do the following:

- ♦ Indicate the presence of the material to your supervisor and ask for assistance in identifying it.

- ♦ If the material seems to be leaking or the container is deteriorated so that it is questionable whether the material will remain contained, contact the Spills Hotline at (800) 457-7362.

Under no-circumstance should an unknown material be moved until the characteristics of the material are known. Unknown material should not be moved even if it is to consolidate with materials that seem to have the same outward appearance. If the material is a hazardous waste, get someone who is properly trained to move it.

- ♦ **Remember: Anyone removing hazardous waste from your property should have a proper Part 364 transporter permit.**

Unknown materials can be dangerous. If moved, they could explode. If opened without the proper procedures, they could release dangerous vapors. Unknown materials could be harmful for you or the people in the area. Therefore, it is best to leave the material where it is found and request assistance to deal with it.

Any Questions, Contact the Hazardous Waste Remediation Unit at your Regional DEC office.

Region 1 - (516) 444-0354
Region 2 - (718) 482-4900
Region 3 - (914) 256-3000
Region 4 - (518) 357-2234
Region 5 - (518) 897-1200
Region 6 - (315) 785-2238
Region 7 - (315) 426-7400
Region 8 - (716) 226-2466
Region 9 - (716) 851-7220

SOLID WASTE

Common Questions Answered in this Session include:

- ❑ **Can I still have a small dump on a facility property?**
- ❑ **Can I landfill construction/demolition debris on facility property?**
- ❑ **How is asbestos handled?**
- ❑ **Are oil filters allowed to be thrown into the trash?**
- ❑ **What do I have to recycle?**

Solid wastes are any discarded (abandoned, recycled or considered waste-like) materials. Solid wastes can be **solid, liquid, semi-solid** or containerized **gaseous** material.

Examples of solid wastes that may be encountered include but are not limited to:

- ♦ Waste tires
- ♦ Scrap metal
- ♦ Construction and demolition debris
- ♦ Domestic refuse (garbage)
- ♦ Discarded appliances (freon must be removed from any appliance before discarding)
- ♦ Latex paints
- ♦ Empty aerosol cans, paint cans and compressed gas cylinders
- ♦ Used oil

The disposal of solid waste is regulated by law, rules and regulations to protect the quality of land, air and water. DEC specifies what can be included in solid waste and how it can be disposed of (combustion and landfill standards). DEC also specifies that recycling must be part of any waste management program. Key concepts for any facility include:

1. Hazardous waste must not be disposed of as, or combined with municipal solid waste
2. Recycling is an important aspect of waste management. Municipal/commercial waste streams must conform to the recycling program of the community. Facilities should review their bulky wastes to see if any can be recycled.
3. Source reduction means not generating waste. Facilities should avoid as much packaging (boxes, shrink wrap, etc.) as possible; fully used materials purchased; and reuse items as possible.
4. Solid wastes sent for disposal must only go to DEC permitted facilities.

Unlawful/illegal disposal must be prevented. Specific locations within the facility designated for storage of wastes must be clearly signed (posted) and kept clean. Any areas where dumping has occurred must be immediately cleaned, posted (no dumping) and reported to local police, Conservation Officers and facility management.

Asbestos is a dangerous material to handle. If you want to remove asbestos (pipe covering, insulation, etc.) or other protective items contract with a licensed disposal contractor. DO NOT ATTEMPT TO REMOVE IT YOURSELF! An alternative to removal is to seal it in place with paint to prevent the asbestos from becoming airborne. **Check with the Department of Labor for specific regulations**

Any questions please call the DEC Division of Solid and Hazardous Material in Albany at (518) 457-7733 or the DEC Regional Office serving your area (see page 47).

SPILL RESPONSE

Common Questions Answered in this Session include:

- ❑ **Who cleans up spills?**
- ❑ **What do I do with the material cleaned up from a spill?**
- ❑ **Is a slow leaking hydraulic tank considered a spill?**
- ❑ **Why should I keep records of hydraulic systems oil use?**
- ❑ **Do all spills have to be reported?**

Training - Staff should be trained to respond to spills in the following fashion:

1. Notification (see below)
2. Evacuation
3. Cleanup
   a. Training and equipment for cleanup
   b. List of contractors to hire

Evacuation and cleanup procedures should be presented in an emergency plan specifically prepared for your facility.

Notification of Spills - All reportable petroleum spills and most hazardous substances spills must be reported - by the responsible party within two hours to the NYSDEC Spills hotline 1 (800) 457-7362 within New York State; and 1 (518) 457-7362 from outside New York State.

Petroleum Spills - Petroleum spills must be reported to NYSDEC unless they meet all of the following:

- ♦ The spill is known to be less than 5 gallons; and
- ♦ The spill is contained (on pavement or concrete) and under the control of the spiller; and
- ♦ The spill has not and will not reach the State's water or any land; and
- ♦ The spill is cleaned up within 2 hours of discovery.

If there is any doubt about the quantity of the spill, report it to the DEC Hotline.

Hazardous Substances Spills - There are specific reportable quantities for each substance. You will need a copy of Chemical Bulk Storage regulations, 6NYCRR Part 597. Call 1 (888) 457-4351.

Additional Notification - Additional notification to Federal or local authorities may be required or warranted. If in doubt of requirements, contact the DEC at 1 (888) 457-4351.

Petroleum Contaminated Soil

If a spill does occur and you need to remove petroleum contaminated soil from your property, make sure you contact the Spills Unit at your Regional DEC office to determine what testing is required before the soil is removed for disposal. Remember, if the spill contaminates soil, the spill must be reported to the DEC Spill hotline.

Any questions contact the Spills Unit at your Regional DEC office.

Region 1 - (516) 444-0354
Region 2 - (718) 482-4900
Region 3 - (914) 256-3000
Region 4 - (518) 357-2234
Region 5 - (518) 897-1200
Region 6 - (315) 785-2238
Region 7 - (3 15) 426-7400
Region 8 - (716) 226-2466
Region 9 - (716) 851-7220

PROTECTION OF WATER BODIES

Common Questions Answered in this Session include:

- ❑ **How much work can I do on a stream bank before I need a permit?**
- ❑ **If the property is owned by the state do I need a state DEC permit?**
- ❑ **How do I find out what a stream classification is?**
- ❑ **Why does DEC include dates where no work can be done?**
- ❑ **Can I fix a dock without a permit?**
- ❑ **Do temporary docks need permits?**

The waterways of New York State are an important resource for commerce, agriculture, industry, and fish and wildlife habitat. These waterways take the form of lakes, rivers, streams, and ponds. Understanding that certain activities can adversely affect the delicate balance of these important natural systems, New York State Department of Environmental Conservation (DEC) protects these waters through Title 5 of Article 15 of the Environmental Conservation Law.

The DEC was charged with implementing this policy through its Protection of Waters regulatory program. Intended to prevent undesirable activities on state water bodies, these regulations were designed to:

- ♦ Enable the DEC to preserve, protect and enhance the present and potential values of the state's water resources;
- ♦ protect public health and welfare;
- ♦ be consistent with the reasonable economic and social development of the state.

The Protection of Waters Program regulates four categories of activities:

1. Disturbance of the bed or banks of a protected stream or other watercourse (See Classification of Waters section below).
2. Construction and maintenance, of dams.
3. Excavation and/or placement of fill in navigable waters, including adjacent wetlands and marshes.
4. Construction of docks and other moorings.

Classification of waters

Certain waterways of the state are classified on the basis of the existing or expected best users for that waterway. The highest classifications, "AA" or "A" are assigned to waters used for drinking and food preparation. The next category, "B" is used to classify waters used for swimming and other contact recreation. The classification "C(t)" indicates waters protected to support trout populations. The bed and banks area (a maximum of 50 feet from the stream) on these protected streams are regulated.

You need a permit if your project...

- Disturbs the bed or banks of protected streams mapped as C(t) or higher,
- Places fill or removes material below the mean high water mark within the watercourse of a navigable waters.
- Constructs or maintains a dam which either exceeds 6 feet in height and impounds more than 3 million gallons OR exceeds 15 feet in height and impounds more than 1 million gallons.

Do not start a project before obtaining necessary permits!

Persons working on projects before obtaining necessary permits are subject to enforcement action. If you are unsure whether or not your project involves a permit, contact your Regional DEC office. Finally, some projects involve jurisdiction by additional state and federal agencies. Be sure to inquire about additional agency permits.

If you have any questions or wish to check on a classification of a specific water body, please call the DEC Regional Office nearest you (see page 47).

WATER POLLUTION

Common Questions Answered in this Session include:

- ❑ **What is the difference between a point source and non point source discharge?**
- ❑ **Are permits needed for all discharges of wash water?**
- ❑ **Are floor drains legal?**
- ❑ **Must I have a schedule for cleaning out grease traps, septic tanks, etc.?**
- ❑ **What can I throw away in a drain?**
- ❑ **What can I dispose of in a septic system?**
- ❑ **Why to dams require permits?**

IV Wastewater:

There are many sources of wastewater at an institutional facility. Domestic waste (sewage), bath, sink and cleanup waters, kitchens, laundries begin the list. Water used in shops, repair and maintenance areas, boiler blowdown, air conditioning and other cooling towers are additional sources. All wastewater must be properly collected and treated to prevent water pollution.

- ♦ Discharge options – where available, the use of a municipal sewer system is the next alternative. When not available direct discharge to surface or groundwater may be acceptable.
- ♦ Permits or approvals, are most likely, required. Contact the local DEC office for advice.
- ♦ Water conservation and waste minimization should be maximized as both a cost savings effort and an environmental benefit.

- ♦ <u>Other points to keep in mind:</u>

  - Septic tanks should be inspected and pumped out a minimum of once every two years. The tanks must be pumped by a licensed hauler.

  - Treatment plant designs must be approved prior to construction.

  - Direct discharges may require periodic sampling and analysis of the effluent as a condition of the SPDES permit.

  - The Discharge Notification Act requires posting of a sign near your discharge to inform the public of the nature of the discharge.

II. Nonpoint Sources

Nonpoint sources of water pollution are sources not emanating from a pipe or point source. They are diffused but can cumulatively contribute to water quality degradation. Contaminants carried over land in runoff after a storm is an example. Pesticides and fertilizers applied on land are considered nonpoint pollutants if they find their way into surface or groundwaters.

- Road Salt Storage and Handling

  - Road salt, or other deicing materials, should be stored under cover to minimize the effects of weather and potential for brine runoff.

  - Limit application to only what is necessary, more is not always better.

  - Site should be developed to direct runoff away from salt piles.

  - Drainage around salt shed and loading areas should provide for capture of runoff. Collected runoff can be pumped back onto stockpile sand when weather conditions are practical.

- Fertilizers, Pesticides, Herbicides

  - Apply at recommended rates and timeframes

  - Store in areas protected from weather to prevent runoff from contaminating surface and groundwaters.

III. Stormwater

Many stormwater discharges are subject to federal regulations. Types of activities which require permits include:

- bus terminals
- trucking terminal facilities
- warehousing and storage facilities
- construction activities on lands greater than five acres
- coal fired steam electric facilities
- other activities where there is a potential for contact with toxic chemicals

In order to make approvals easier to obtain, general permits have been developed by DEC. The permits require: (a) the use of "best management practices" to minimize the impacts of stormwater runoff; (b) the development of a Stormwater Pollution Prevention Plan.

♦ Other points to keep in mind:

- be sure a facility is required to obtain a stormwater permit before investing time and money into a formal stormwater pollution prevention plan.

- minimize exposure of toxic substances to precipitation and stormwater runoff.

- educate employees about spill prevention and careful disposal of toxic substances.

IV. Vehicle Service, Washing and Storage

The DEC strongly encourages "vehicle staging" wherein different kinds of operations involving vehicles take place in separate, single purpose (or similar purpose) bays. The functions of service, washing with detergents, washing with clean water and storage require different levels of environmental protection.

Clean water vehicle washing – Plain water washing of vehicles can be done outside. It should be done in a manner to minimize runoff and should be directed away from any surface waters to prevent a visible water quality impact from occurring. Use of high-pressure wand is recommended to reduce water usage.

Detergent vehicle washing – Detergent washing is acceptable if inside a building that has floor drains which discharge to a municipal sewer or to a holding tank. Floor drains are not allowed to discharge to groundwaters. Floordrains that discharge to surface waters will require a State Pollutant Discharge Elimination System (SPDES) permit and will probably require extensive treatment.

Vehicle service areas – Floor drains from vehicle service areas will need to have oil/water separators. A discharge to a municipal sewer or a holding tank is preferred. Discharges to groundwaters are not allowed. Discharges from oil/water separators to surface waters require a SPDES permit.

Oil/water separators should periodically be inspected for oil and solids buildup. The separator must be cleaned-out by a licensed waste hauler.

Employees in vehicle service washing and storage areas need to be trained to the basics of best management practices in their work areas to include:

- minimize all leaks and spills of petroleum products, antifreeze, grease and other vehicle fluids. Promptly clean up any spills or leaks that occur. Dry clean up is almost always the best option when possible.

- Never dump or dispose of any fuels, solvents or vehicle related fluids into a sink or floor drain.

- Never wash or service a vehicle in an area not specifically designed for that function.

- specific procedures and notifications should be established in the event of a major spill or accident that threatens any waste disposal system or the environment.

Any questions please call the DEC Division of Water at (518) 457-1157 or the Regional DEC Office serving your area (see page 47).

WETLANDS (FRESHWATER)

Common Questions Answered in this Session include:

- ❑ **What can I do in a wetland without a permit?**
- ❑ **Who defines a wetland?**
- ❑ **Why are wetlands protected?**
- ❑ **Can I drain a wetland or cut trees in a wetland?**
- ❑ **Some wetlands are not wet—are they protected?**

Fresh water wetlands are lands and submerged lands, commonly called marshes, swamps, sloughs, bogs and flats, supporting aquatic or semi-aquatic vegetation of various types. Wetlands are valuable natural resources which provide us benefits, such as, flood control, surface and groundwater protection, wildlife habitat, open space and outdoor recreation. The Department of Environmental Conservation regulates activities affecting wetlands under the New York State Freshwater Wetlands Act, Article 24. The U. S. Army Corps of Engineers also regulate wetlands under Section 404, of the Clean Water Act.

Wetlands regulated by the Department are mapped

- ♦ Wetland 12.4 acres or larger are regulated. Wetlands smaller than 12.4 acres determined to have unusual local importance are also regulated.
- ♦ The Department's official wetland maps are based on NYS Department of Transportation 7-1/2 minute quadrangle maps and may be viewed at Department and local government offices.
- ♦ Copies of NYS Freshwater Wetland maps may be ordered. Contact your Regional DEC office for information.
- ♦ Wetland boundaries shown on the maps are approximate.

The Department will delineate the location of wetland boundary on a property upon the request of the landowner or project sponsor.

- ♦ Requests are made by contacting Department Regional Offices.
- ♦ There is no cost for delineation of State wetland boundaries.
- ♦ Some wetland types are difficult to recognize. Please contact the Department for delineation before conducting a regulated activity in the vicinity of a mapped wetland.
- ♦ A Wetland Delineation Manual is available from the Department to guide consultants in delineating State wetland boundaries.

State wetland maps may be amended

- Wetlands may be added, deleted or their boundaries may be changed. Public and landowner notice is given during the amendment process.

Regulated Activities

The Department regulates activities which may occur in wetlands or their adjacent areas. Adjacent areas extend 100 feet from the wetland boundary. Examples of regulated activities which require a wetland permit include:

- Construction of buildings, roads, septic systems, bulkheads, dikes or dams
- Placement of fill, excavation, or grading
- Modification, expansion, or extensive restoration of existing structures
- Drainage, except for agriculture
- Application of pesticides in wetlands

Any questions concerning a State wetland map, boundary or the need for a permit, please contact your nearest DEC Regional Office (see page 47).

SUMMARY

Compliance with New York State and federal environmental regulations is required by all citizens and organizations. The laws and regulations were not developed to be problematic and cumbersome. The were developed to protect the environment while allowing most activities important to society to continue. If laws were completely protective many common activities—driving a car, heating with coal or oil, generating power, etc.—would not be permitted. The laws usually allow for some level of pollution to occur to the extent that it can be absorbed and detoxified by natural systems. Consequently, we must function within the framework of these regulations or suffer the penalties associated with non-compliance and environmental degradation.

Ignorance of the law/rule/regulations is not an acceptable excuse for non-compliance. Therefore, this manual and the associated seminar is offered to alert you to the major environmental laws and their most significant provisions which most likely will impact your daily activities. Unfortunately, we cannot cover all aspects of all laws nor the specific instances associated with each person's work area. Therefore, we have provided a list of telephone numbers of DEC staff persons, both in the regional offices and in Albany, for your use. If you have a question or concern please call.

Lastly, a comment on pollution prevention. While not a law that requires you to do something specific, pollution prevention is a work ethic wherein every individual can make some day to day choices that will have a positive impact on your local environment. These choices cost you very little in time and effort yet offer the satisfaction that you have performed a quiet and unselfish act for no other reason than to make a small piece of air/land/water more hospitable to a plant or animal.

New York State Department of Environmental Conservation

Region	Phone Number	Counties Served	
Region 1 SUNY Campus Loop Road, Building 40 Stony Brook, NY 11790-2356	(516) 444-0354	Nassau	Suffolk
Region 2 1 Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5407	(718) 482-4900	Bronx Brooklyn Manhattan	Queens Staten Island
Region 3 21 South Putt Corners Road New Paltz, NY 12561-1696	(914) 256-3000	Dutchess Orange Putnam Rockland	Sullivan Ulster West Chester
Region 4 1150 Westcott Road Schenectady, NY 12306-2014	(518) 357-2234	Albany Columbia Delaware Greene Montgomery	Otsego Rensselaer Schenectady Schoharie
Region 5 Route 86 P.O. Box 296 Ray Brook, NY 12977-0296	(518) 897-1200	Clinton Essex Franklin Fulton	Hamilton Saratoga Warren Washington
Region 6 State Office Building Watertown, NY 13601	(315) 785-2238	Herkimer Jefferson Lewis	Oneida St. Lawrence
Region 7 615 Erie Boulevard West Syracuse, NY 13204-2400	(315) 426-7400	Broome Cayuga Chenango Cortland Madison	Onondaga Oswego Tioga Tompkins
Region 8 6274 East Avon-Lima Road Avon, NY 14414	(716) 226-2466	Chemung Genesee Livingston Monroe Ontario	Orleans Schuyler Steuben Waynes Yates
Region 9 270 Michigan Avenue Buffalo, NY 14203-2999	(716) 851-7200	Allegany Cattaraugus Chautauqua	Erie Niagara Wyoming

BEST COPY AVAILABLE

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

	This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.
X	This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").